

Notice of Allowability

Application No.

09/619,435

Applicant(s)

HAGIHARA ET AL.

Examiner

Nhan T. Tran

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 3/31/2005.
2. ☒ The allowed claim(s) is/are 21,22,24-26,28,40-43,45 and 80-84.
3. ☒ The drawings filed on 19 July 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


James J. Groody
Supervisory Patent Examiner
Art Unit 262-2615

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see amendment, filed 3/31/2005, with respect to claims 80-84 have been fully considered and are persuasive. The previous rejection has been withdrawn.

Election/Restrictions

2. This application is in condition for allowance except for the presence of claims 1-20, 23, 27, 29-39, 44 & 46-79 non-elected without traverse (see Applicant's remarks filed 6/21/2004). Accordingly, claims 1-20, 23, 27, 29-39, 44 & 46-79 have been cancelled.

Allowable Subject Matter

3. Claims 21, 22, 24-26, 28, 40-43, 45, 80-84 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding independent claim 21, the prior art of record fails to teach or fairly suggest the combination of all limitations required in claim 21 that includes "...a second switch connected between the first electrode and control electrode of the first transistor; and a controller that makes the individual pixels perform image sensing by turning on the first and second switches and that detects variations in sensitivity of the individual pixels by turning off the first and

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second switches and varying a voltage fed to the control electrode and second electrode of the first transistor.”

Regarding claims 22, 24-26 and 28, these claims are dependent of claim 21.

Regarding independent claim 40, the prior art of record also fails to teach or fairly suggest the combination of all limitations required in claim 40 that includes “...a fourth MOS transistor having a first electrode connected to the first electrode of the second MOS transistor, a second electrode connected to the gate electrode of the second MOS transistor, and a gate electrode; and a fifth MOS transistor having a first electrode connected to the gate electrode of the second MOS transistor, a second electrode to which a direct-current voltage is applied, and a gate electrode; and a controller that makes the individual pixels perform image sensing by turning on the first and fourth MOS transistors and turning off the fifth MOS transistor so that the second MOS transistor operates in a subthreshold region below a threshold voltage thereof and that detects variations in sensitivity of the individual pixels due to variations in the threshold voltage of the second MOS transistors by turning off the first and fourth MOS transistors and turning on the fifth MOS transistor and then varying a voltage fed to the second electrode of the second MOS transistor.”

Regarding claims 41-43 and 45, these claims are dependent of claim 40.

Regarding claim 80, the prior art of record also fails to teach or fairly suggest the combination of all limitations required in claim 80 that includes “...a controller that makes the individual pixels perform image sensing by turning on the first switching element and feeding a first voltage to the second electrode of the first transistor so that the first transistor operates in a subthreshold region and that turns off the first switching element for resetting the individual

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pixels, said controller temporarily feeding a second voltage to the second electrode of the first transistor during the first switching element is turned off, said second voltage being different from the first voltage so that the individual pixels are brought into a substantially identical initial state.”

Regarding claims 81-84, these claims are dependent of claim 80.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.